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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/875,335

06/06/2001

Harri Posti

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05/10/2004

EXAMINER

BAYARD, EMMANUEL

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8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 05/10/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,335

Applicant(s)

POSTI, HARRI

Examiner

Emmanuel Bayard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is in response to amendment filed on 3/1/04 in which claims 20-38 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 20-22, 24, 28-31, 34 and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Fitzgerald U.S. Patent NO 6,018,647.

As per claims 20 and 37-38, Fitzgerald et al discloses a receiver for receiving a plurality of different signals at the same time, said receiver (see fig. 3) comprising: means for identifying at least one strongest signal of said plurality of different signals (see abstract and fig.3 element 180 and col.6, lines 45-55 and col.9, lines 30-67); and a filter (see fig.3 element 200 and col.6, lines 55-58 and col.9, lines 1-10) for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of said at least one strongest signal with respect to the other of said plurality of signals, said filter having an input to receive said plurality of different signals and an output providing said plurality of different signals with signals within said frequency band of said one strongest signal being attenuated.

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As per claim 21, the receiver of Fitzgerald inherently includes wherein the plurality of different signals are at different frequencies.

As per claim 22, the receiver of Fitzgerald inherently includes wherein said filter is a notch filter.

As per claim 28, the receiver of Fitzgerald inherently includes a coupler.

As per claims 29, 31 the receiver1 or receiver2 of Fitzgerald inherently includes a down converter unit is provided for down converting said received signals to an intermediate frequency range, said down converter unit being arranged to receive a control signal (see fig.3 element 160) from said identifying means for determining said intermediate frequency range, whereby said intermediate frequency range is determined by said identifying means based on the frequency of the strongest signal.

As per claims 24, 30, 34 the receiver1 or receiver2 of Fitzgerald inherently includes a down converter unit is provided for down converting said signals and the identifying means comprises means for measuring the strength of the signals at the base band.

Claims 20-22, 24, 28-31, 34 and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahany U.S. Patent NO 6,018,555.

As per claims 20 and 37-38, Mahany et al discloses a receiver for receiving a plurality of different signals at the same time, said receiver (see fig. 3) comprising: means for identifying at least one strongest signal of said plurality of different signals (see abstract and col.2, lines 30-35 and col.4, lines 40-47); and a filter (see col.10, lines 55-65) for attenuating only within a frequency band and adjustable to attenuate only within another frequency band of one of said at least one strongest signal with respect to the other of said plurality of signals, said filter having

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an input to receive said plurality of different signals and an output providing said plurality of different signals with signals within said frequency band of said one strongest signal being attenuated.

As per claim 21, the receiver of Mahany inherently includes wherein the plurality of different signals are at different frequencies.

As per claim 22, the receiver of Mahany inherently includes wherein said filter is a notch filter.

As per claim 28, the receiver of Mahany inherently includes a coupler.

As per claims 29, 31 the receiver of Mahany inherently includes a down converter unit is provided for down converting said received signals to an intermediate frequency range, said down converter unit being arranged to receive a control signal (see fig.3 element 160) from said identifying means for determining said intermediate frequency range, whereby said intermediate frequency range is determined by said identifying means based on the frequency of the strongest signal.

As per claims 24, 30, 34 the receiver1 or reeiver2 of Mahany inherently includes a down converter unit is provided for down converting said signals and the identifying means comprises means for measuring the strength of the signals at the base band.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23, 25-27 and 32-33, 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitzgerald U.S. Patent No 6,018,647 in view of Fischer et al U.S. Patent No 5,852,651.

As per claim claims 23 and 25 Fitzgerald discloses all the features of the claimed invention except an analogue to digital converter (see fig.8 elements 170, 170') is coupled to the output of the filter, whereby the at least one strongest signal is in the dynamic range of said analogue to digital converter after being attenuated by said filter.

Fischer does include an analogue to digital converter (see fig.8 elements 170, 170') is coupled to the output of the filter, whereby the at least one strongest signal is in the dynamic range of said analogue to digital converter.

It would have been obvious to one of ordinary skill in the art to implement the teaching of Fischer into Fitzgerald as for the separate digitized streams would be multiplexed and transmitted to the remote unit and converted to RF signals for coverage of a particular sector by the corresponding micro cell antenna unit as taught by Fischer (see abstract).

As per claims 26, 27, 32 the receiver of Fischer does include, a splitter (see fig.44 element 934) for dividing said signals, said splitter comprising a first output coupled to said identifying means and a second output coupled to a main signal path which includes said filter. Furthermore implementing such teaching into Fitzgerald would have been obvious to one skilled in the art as to split the analog RF signal into N paths corresponding to channels assigned to each of the antenna pairs as taught by Fischer (see col32, lines 5-10).

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As per claim 33, the receiver of Fischer does include a fast Fourier transform unit (see fig.37 element 856) for separating said signals. Furthermore implementing such teaching into Fitzgerald would have been obvious to one skilled in the art so that FFT could be selectively filled with digitized micro cell traffic samples from a selected source as taught by Fischer (see col.27, lines 33-35).

As per claims 35, 36 the receiver of Fischer does include the digital down converter comprises an oscillator (see fig.24 element 406, 430), the frequency of which is altered to provide each of said plurality of signals at the base band. Furthermore implementing such teaching into Fitzgerald would have been obvious to one skilled in the art as to clock the FFT In digitized micro cell traffic samples consisting of 12 bit words or more.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is (703) 308-9573. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 5:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour, can be reached on (703) 306-3034. The fax phone number for this Group is (703) 872-9314.

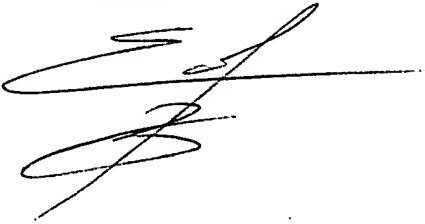
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Emmanuel Bayard

Primary Examiner

5/6/04

A handwritten signature in black ink, appearing to be 'E. Bayard', written over a horizontal line.